

OFFICE OF THE PRINCIPAL SON COLLEGE P.O.: Sonari, Dist.: Charaideo (Assam) PIN 785690 e-mail:principalsonaricollege@gmail.com Phone No .03772 256515(O)

Ref. No. ....

06-06-2019 Date .....

Principal SONARI COLLEGE SONARI

**Program Outcomes (POs)** Program Specific Outcomes (PSOs) and **Course Outcomes (COs)** in Bachelor of Arts (B.A.) under CBCS

#### Program Outcomes (PO'S) Bachelor of Arts (B.A.)

PO1. This programme will help the students to understand various socio-economic, historical, geographical, and political aspects, conditions, philosophy and changes of the

PO2. This will enable the students to acquire the understanding of personal and social life. PO3.It will provide practical and useful knowledge on how to cope with the society and serve for the nation.

PO4. Graduates will be eligible to appear in a variety of competitive exams or enrol in a postgraduate school of their choice.

PO5. The curriculum equips students with human values and ethics necessary to be a responsible citizen for the nation and human society. PO6. It will inspire the students to think and act reasonable.

PO7. The students will be ignited to solve the challenges of life and society with courage and humanity for the better life and world.

#### Program Specific Outcomes (PSOs) **B.A.** in Economics

PSO1 A degree in economics has potentiality of employment in a broad spectrum such as economist, data analyst, actuarial analyst, financial risk analyst, Statistician, data scientist, **PSO2** After completion of Bachelor of Arts (B.A.) in Economics students can go for higher education such as Post Graduation in the concerned subject or other related subject of one's interest.

**PS03** A graduate in economics will acquire knowledge on how economy works and what to do for uplift of the economy **PS04** The proceeding the economy

**PS04** The programme will enable students to work for people-centred economic activities, remove economic inequality and maintain sustainable development.

#### Course Outcomes (COs) B.A. in Economics (Major)

## **<u>C1: Introductory Microeconomics</u>**

CO1 To support students to understand the basic principles of microeconomic theory. CO2 To enhance the thinking ability on micro-economics

CO3 To illustrate the microeconomics concept to real-life situations.

## C2: Mathematical Methods for Economics

CO1 To acquaint the learners with the mathematical techniques that can be applied in Economics.

#### **GE 1: Introductory Microeconomics**

CO1 To help students in understanding the basic principles of microeconomic theory. CO2 To aim at enhancing the thinking ability and illustrating the microeconomics concept to real-life situations.

#### **C3: Introductory Macroeconomics**

CO1: To introduce the students to the basic concepts of Macroeconomics. CO2: To discusses the preliminary concepts associated with the determination and measurement of aggregate macroeconomic variable like savings, investment, GDP, money, inflation, and the balance of payments.

#### C4: Mathematical Methods for Economics-II

CO1: To acquaint the learners with the fundamentals of basic mathematics that enables the study of economic theory at the undergraduate level.

CO2: In this course, particular economic models are not the ends, but means for illustrating the method of applying mathematical techniques to economic theory in general.

#### **GE 2: Introductory Macroeconomics**

CO1: To introduce the students to the basic concepts of Macroeconomics.

CO2: To discusses the preliminary concepts associated with the determination and measurement of aggregate macroeconomic variable like savings, investment, GDP, money, inflation, and the balance of payments.

#### C5: Essentials of Microeconomics

CO1 To provide a sound training in microeconomic theory to formally analyze the behaviour of individual agents.

CO2 Since students are already familiar with the quantitative techniques in the previous semester, mathematical tools are used to facilitate understanding of the basic concepts.

CO3 To give a glimpse of the behaviour of the consumer and the producer and also emphasis on the behaviour of a competitive firm.

principal

#### **C6: Essentials of Macroeconomics**

CO1 To introduce the students to formal modeling of a macro-economy in terms of analytical tools.

CO2 To discuss various alternative theories of output and employment determination in a closed economy in the short run as well as medium run, and the role of policy in this context. CO3 It also introduces the students to various theoretical issues related to an open economy.

## **C7: Statistical Methods for Economics**

CO1 To acquaint the learner with a few fundamental statistical strategies that may be implemented in Economics

## GE 3 (a): Indian Economy- I

CO1 This course reviews major trends in economic indicators and policy debates in India in the post-Independence period, with particular emphasis on paradigm shifts and turning points.

CO2 Emphasis is also given in capturing the emerging issues.

## **GE 3 (b): Money and Financial Markets**

CO1 To provide knowledge on the theory and functioning of the monetary and financial sectors of the economy.

CO2 To highlight the organization, structure and role of financial markets and institutions with special reference to India are also covered.

#### **GE 3 (c): Environmental Economics**

CO1 To give understanding on concepts, methods and policy options in managing the environment using tools of economic analysis.

CO2 This course examines different approaches to adjusting behaviour through economic institutions such as markets and incentives as well as through regulation, etc.

CO3 Environmental problems and issues are also highlighted from the Indian and international context

CO4 To focus on the impact of economic growth on the environment under the rubric of sustainable development.

CO5 This course will be useful for students aiming towards careers in the government sector, policy analysis, business, journalism and international organizations.

## **C8: Advanced Microeconomics**

CO1 The purpose of this course is on giving conceptual clarity to the student coupled with the use of mathematical tools and reasoning covering general equilibrium and welfare, imperfect markets and topics under information economics

#### **C9: Advanced Macroeconomics**

CO1 To acquaint the students with an introduction to the long run dynamic issues like growth and technical progress.

CO2 To provide the micro-foundations to the various aggregative concepts used in the previous course.

## **C10: Introductory Econometrics**

CO1 To provide a comprehensive introduction to basic econometric concepts and techniques. CO2 It covers statistical concepts of hypothesis testing, estimation and diagnostic testing of simple and multiple regression models. CO3 It analyse the consequences of and tests for misspecification of regression models.

## GE 4 (a): Indian Economy - II

CO1 To examine the sector-specific polices and their impact in shaping trends in key economic indicators in India.

CO2 To highlight the major policy debates and evaluates the Indian empirical evidence.

CO3 Emphasis is also given in capturing the emerging issues.

## GE 4 (b): Economic History of India(1857-1947)

CO1 To analyse the key aspects of Indian economic development during the second half of British colonial rule.

CO2 To investigates the place of the Indian economy in the wider colonial context, and the mechanisms that linked economic development in India to the compulsions of colonial rule.

## **GE 4 (c): Public Finance**

CO1 To provide a non-technical overview of government finances with special reference to India.

CO2 The course will be useful for students aiming towards careers in the government sector, policy analysis, business and journalism.

## C11: Indian Economy-I

CO1 To review the major trends in economic indicators and policy debates in India in the post-Independence period, with particular emphasis on paradigm shifts and turning points. CO2 This course also emphasis on capturing the emerging issues of Indian economy.

## C12: Development Economics-I

CO1 This course provides the different concepts related to development economics CO2 Besides in this course focus is also laid on emphasising the different real-life issues such as poverty, inequality, institutions, etc

#### DSE 1 (Group-I): Economics of Health and Education

CO1 This course provides a microeconomic framework to analyze among other things, individual choice in the demand for health and education, government intervention and aspects of inequity and discrimination in both sectors.

C2 This course also gives an overview of health and education in India.

#### **DSE 2(Group-I): Applied Econometrics**

CO1 The aim of this course is to provide a foundation in applied econometric analysis and develop skills required for empirical research in economics.

CO2 In this course emphasis is also laid on understanding the econometric software and computing skills.

## DSE 3(Group-I): Economic History of India(1857-1947)

CO1 This course analyses key aspects of Indian economic development during the second half of British colonial rule.

CO2 This course also investigates the place of the Indian economy in the wider colonial context, and the mechanisms that linked economic development in India to the compulsions of colonial rule.

CO3 This course also links directly to the course on India's economic development after independence in 1947.

## DSE 4(Group-I): Game Theory

CO1 This course introduces the basic concepts of game theory in a way that allows students to use them in solving simple problems.

CO2 This course will deal with the solution concepts for normal form and extensive form games along with a variety of economic applications.

## DSE 5(Group-I): Money and Financial Markets

CO1 The purpose of this course is to acquaint students to the theory and functioning of the monetary and financial sectors of the economy.

CO2 This course also highlights the organization, structure and role of financial markets and institutions, interest rates, monetary management, instruments of monetary control, financial and banking sector reforms and monetary policy with special reference to India are also covered.

## **DSE 6(Group-I): Public Economics**

CO1 The purpose of this course is to deal with the nature of government intervention and its implications for allocation, distribution and stabilization.

CO2 This course comprises of a host of topics including public goods, market failures and externalities.

CO3 In this course emphasis is laid on both the theory of public economics and the Indian public finances.

## C13: Indian Economy-II

CO1 This course examines sector-specific polices and their impact in shaping trends in key economic indicators in India.

CO2 This course also highlights major policy debates and evaluates the Indian empirical evidence.

#### C14: Development Economics-II

CO1 This course is the second module of the economic development sequence.

CO2 The purpose of this course is to familiarize learners with theoretical development measurements and conceptual questions and the different issues of development.

#### DSE 7 (Group-II): Financial Economics

CO1 This course introduces students to the economics of finance.

CO2 Some of the basic models used to benchmark valuation of assets and derivatives are studied in detail; these include the CAPM, and the Binomial Option Pricing models.

#### **DSE 8 (Group-II): Environmental Economics**

CO1 This course focuses on economic causes of environmental problems.

CO2 In particular, economic principles are applied to environmental questions and their management through various economic institutions, economic incentives and other instruments and policies.

CO3 Economic implications of environmental policy are also addressed as well as valuation of environmental quality, quantification of environmental damages, tools for evaluation of environmental projects such as cost-benefit analysis and environmental impact assessments.

CO4 Selected topics on international environmental problems are also discussed.

#### **DSE \* (Group-II): International Economics**

CO1 The main aim of this course is based on abstract theoretical models, students will also be exposed to real world examples and case studies.

## DSE 10 (Group-II): The Economy of Economy of North-East India

CO1 The objective of this course is to acquaint the learners with the characteristics as well as with the current issues of the economy of North-East India.

CO2 The learners will also be able to know the performance and problems of the primary, secondary and tertiary sectors of North-East India.

#### *Course Outcomes (CO'S)* B.A. in Economics (*Non-Major*)

## Core 1: Principles of Microeconomics-I

CO1 This course intends to expose the student to the basic principles in Microeconomic theory and illustrate with applications.

#### **Core 2: Principles of Microeconomics-II**

CO1 This course aims to help students understand the basic principles of microeconomic theory.

CO2 This course emphasises on enhancing the thinking ability.

CO3This course also emphasises on illustrating the microeconomics concept to real-life situations.

## Core 3: Principles of Macroeconomics-I

CO1 This course introduces students to the basic concepts in Macroeconomics.

CO2 In this course the students are introduced to the definition, measurement of the macroeconomic variables like GDP, consumption, savings, investment and balance of payments.

CO3The course also discusses various theories of determining GDP in the short run.

## Core 4: Principles of Macroeconomics-II

CO1 This course analyses various theories of determination of National Income in greater detail.

CO2 This course also introduces students to concept of inflation, its relationship with unemployment and some basic concepts in an open economy.

#### DSE 1: Economic Development and Policy in India–I

CO1 This course reviews major trends in aggregate economic indicators in India and places against the backdrop of major policy debates in India in the post- Independence period.

#### DSE 2: Money and Banking

CO1 This course exposes students to the theory and functioning of the monetary and financial sectors of the economy.

CO2 This course also highlights the organization, structure and role of financial markets and institutions

CO3 Financial and banking sector reforms and monetary policy with special reference to India are also covered in this course.

## **DSE 3: Environmental Economics**

CO1 This course focuses on economic causes of environmental problems.

CO2 In particular, economic principles are applied to environmental questions and their management through various economic institutions, economic incentives and other instruments and policies.

CO3 Economic implications of environmental policy are also addressed as well as valuation of environmental quality, quantification of environmental damages, tools for evaluation of environmental projects such as cost-benefit analysis and environmental impact assessments. CO4 Selected topics on international environmental problems are also discussed.

#### DSE 4: Economic Development and Policy in India–II

CO1 This course examines sector-specific trends in key indicators and their implications in the post-Independence period.

## DSE 5: Economic History of India(1857-1947)

CO1 This course analyses key aspects of Indian economic development during the second half of British colonial rule.

CO2 The aim of this course is to investigates the place of the Indian economy in the wider colonial context, and the mechanisms that linked economic development in India to the compulsions of colonial rule.

#### **DSE 6: Public Finance**

CO1 This course provides a non-technical overview of government finances with special reference to India.

CO2 The course will be useful for students aiming towards careers in the government sector, policy analysis, business and journalism.

## Program Specific Outcomes(PSOs) BA in ENGLISH( CBCS)

- **PSO 1**: Orient and contradistinguish the heritage of ancient Indian literature and the classical western literary paradigm .
- **PSO 2**: Grasping the context of Indian writing in English from the colonial to the postcolonial period and familiarizing learners with British poetry and drama from Chaucer to Shakespeare.
- PSO 3 : Conceptualize the important writers of American history and literature, grasping the different genres of popular literature and familiarize the students with English literature of the 17<sup>th</sup> and 18<sup>th</sup> centuries.
- **PSO 4** : Initiate students to 18<sup>th</sup> century British literature , the literature of the Romantic period as well as 19th century English literature
- **PSO 5**: Sensitizing learners to gender related issues in women's writing, creating awareness of the philosophical movements in early 20th century British literature and exploring trends in Literary Criticism from the Romantic period to the present, contradistinguishing writing styles and generic forms of literature across the world.
- PSO 6: Contextualizing the socio political conditions of post war Europe in modern European drama, trace the post colonial issues in commonwealth literature, grasp the magnitude of tragedy and trauma of partition, acquainting students with travel writing from medieval period to the present.
- **PSO7**: Introducing students to the theory, fundamentals and tools of communication and develop in them vital communication skills , integral to personal , social and professional interactions .
- **PSO8**: Introducing students to media and communication skills and enabling the students to understand the link between text and the contents
- **PSO9**: Enhance the skills of reading, writing, speaking and listening and to make learners aware of different genres like the short story, poetry, feature article etc.

- **PSO10**: Acquainting the learners with the methodologies of teaching English in classroom situation and enhancing soft skills of learners for professional developments.
- **PSO11**: Enhancing the skills of creative writing and giving students a comprehensive view of communication, its scope and importance in business.

## **Course Outcomes (CO's)**

#### **BA ENGLISH (Honours)**

#### BA I

## ENG(H)-101 (Indian Classical Literature)

- CO1: Acquaints students with the rich cultural heritage of ancient Indian Literature.
- **CO2**: To familiarize students with Sanskrit Literature as vital component of Indian Culture and achieving the highest peak of art form in the plays of Kalidasa and the epics *The Ramayana* and *The Mahabharata*.
- **CO3**: To introduce students Shri Manta Sankardev's dramatic works through his *Parijata Harana Nata* in translation. Though, it is not considered as a piece of classical literature but from the perspective of sensibility it bears the classical tradition.

#### ENG(H)-102 (European Classical Literature)

- CO1: To acquaint students with European Classical Literature in translation.
- **CO2**: To orientate learners with the indebtedness of English Literature to the classical works of Greece and Rome .
- **CO3**: To introduce students with the different genres of Classical Literature like tragedy, comedy, epic, satire, criticism and the like.
- CO4: To initiate students with immortal classics like The Iliad and Metamorphosis.
- **CO5**: To enable students to understand the source of western literary paradigm- a formation that was responsible for constituting the great tradition of the western canon.

#### **BA II**

#### ENG(H)-201 (Indian Writing in English)

- CO1 : To enable students to grasp the diversity of customs and tradition in India.
- **CO2** : To introduce learners to Indian Writing in English from the Colonial to the Post Colonial period.
- **CO3** : To enable students to map the intellectual trajectory from the Pre to Post independence period.
- **CO4**: To underscore issues such as identity politics, gendered differences, home, dislocation language and others with the intention to understand the diversity Indian culture across spatiality.

# ENG(H)-202 (British Poetry and Drama: 14<sup>th</sup> to 17<sup>th</sup> Centuries)

**CO1** : To acquaint the learners with British poetry and Drama from Chaucer to Shakespeare. **CO2** : Introduce students to the works of Shakespeare and Marlowe. **CO3** : To enable students to determine the influence of the European Renaissance on the works of the Elizabethan authors.

#### **BA III**

## ENG(H)-301 (American Literature)

CO1 : To introduce students with American literature.

- CO2 : To highlight important context to American history and Literature like the reality or illusion of the Great American Dream, The Transcendentalist Movement ,the history of slavery in the South , The Great Economic Depression ,etc,.
- **CO3** : To help students to understand the poetics and Politics of an Literature characterized both by liberal and reactionary ideals .

## ENG(H)-302 (Popular Literature)

- **CO1** : To acquaint learners with the different genres of popular literature ,such as crime thriller , graphic fiction ,children's literature and the like.
- **CO2** : To helps students appreciate the presence of a creative space and process that has the potential to affect readers to a degree that even high- brow literature fails to achieve.

# ENG(H)-303 (British Poetry and Drama: 17<sup>th</sup> and 18<sup>th</sup> Centuries)

- **CO1** : To acquaints students with English literature of the Seventeenth and Eighteenth Century.
- **CO2**: To familiarize students with epoch making political events ,such as the Puritan Interregnum and the Restoration.
- **CO3** : To keep learners contradistinguish between the Romantic excesses of the Elizabethan Literature and a Literature marked by restrained and order.
- **CO4**: To enable students to understand how English Drama and Poetry emphasize on the importance of adhering to Classical norms and forms.

## **BAIV**

## ENG(H)-401 (British Literature: 18<sup>th</sup> Century)

- CO1 : To introduce students to 18<sup>th</sup> century British Literature. ]
- CO2: To initiate students with the concepts of Irony and Satire.
- CO3: To acquaints students with Gender Issues.
- **CO4** : To help students to understand the spirit of the age ,as well as the literature embodying the spirit.

#### ENG(H)-402 (British Romantic Literature)

- CO1: To initiates students to the literature of the Romantic Period .
- **CO2** : To highlight the highly imaginative , rhetorical, emotive , visionary, metaphysical,epical,sensuous,aspects of the words of this period .
- **CO3** : To acquaint students with revolutionary zeal of The French Revolution and The American War of Independence .

**CO4**: To introduce students to the genre of The Gothic's Novelwhich debunked rationality and focused on the supernatural.

# ENG(H)-403 (British Literature: 19<sup>th</sup> Century)

- **CO1** : To familiarize students to 19<sup>th</sup> century as emblematic of a certain spiritual crisis resulting the impact of scientific ideology.
- **CO2** : To introduce students to Victorian Literature which was synonymous with the notion of propriety , prudishness and censorship.
- CO3 : To orientate students with the ground breaking theories propounded by Darwin,Marx and Freud.
- **CO4** : To enable students to grasp the philosophical shift resulting from the crisis of faith pertainting to the culture of positivism that manifested its presents in the Victorian period.

## BA V

## ENG(H)-501 (Women's Writing)

- **CO1** : Introducing learners to Women's Writing and underlying the manner in which power operates to silence women from articulating their views.
- **CO2** : Situating women's writing in a space that transcends or upends the male writing tradition through various subversive ways.
- **CO3** : Sensitizing the learners to gender- related issues and to see things from perspective of the Other .

## ENG(H)-502 (British Literature: The Early 20<sup>th</sup> Century)

- **CO1** : Marking the students aware of the philosophical trajectories like symbolism, existentialism, cubism, Dadaism, expressionism and nihilism through early 28<sup>th</sup> century novels and poetry.
- **CO2**: Acquainting students with concepts like stream of consciousness, Oedipus complex, avant-garde, interior monologue ,etc.

## ENG(H)-503 (Literary Criticism)

- **CO1** : Acquainting students with the major trends in literary criticism from the Romantic period to the present.
- **CO2** : Enabling students to understand the text in terms of the context which is purely aesthetic ,historical ,textual or political.
- **CO3**: To develop the reading skills of the students by adapting the ideologies of the different reading processes.

## ENG(H)-504 (World Literature)

**CO1** : Acquainting learners with the form and content of the text that are part of different specialities.

**CO2** : To compare and contrast writing styles and generic from different periods and cultures.

**CO3**: Enabling students to identify major themes of representative poetic and fictional works and trace the influence of one literature upon another.

#### BA VI

## ENG(H)-601 (Modern European Drama)

- **CO1** : Understanding the political , social , individual ,economic conditions of the post- war Europe Henrik Ibsen , Bertolt Brecht and Samuel Beckett .
- **CO2** : To enable students to read modern drama by placing the epochal events of the period as the backdrop.

## ENG(H)-602 (Postcolonial Literatures)

- CO1 : Acquainting students with post colonial literature including the countries subsumed under the rubric the Commonwealth.
- Co2 : Enabling students to focus the issues such as language ,identity, displacement, physical and mental colonization, decolonisation, nationalism, globalization and Diaspora, colonial legacy, gender and sexuality, ethnicity, race,etc and to trace these issues in the literary text.

## ENG(H)-603 (Partition Literature)

- **CO1** : Enabling the students to comprehend the magnitude of the tragedy of partition and the tragedy and trauma of partition.
- **CO2** : Understanding the emotional impact of partition and the traumatic effects on the lives of the people through imaginative literature.

#### ENG(H)-604 (Travel Writing)

- **CO1** : Acquainting the students with writingsofthe travellers from the medieval period to the present as they document the ways of a foreign culture
- **CO2** : Enabling students to appreciate the differences in representation from the category of gender ,religion and race.
- **CO3**: Enabling students to underscore the problems associated with travel writing such as the claims to authenticity of the narratives events, the role of imagination, the ethnocentric gaze of the element of wonder and so forth.

#### BA I

## ENG(H)-101 AECC-1 (English Communication)

- CO1 : Acquainting students with the theory, fundamentals and the tools of communication.
- **CO2** : Developing in students vital communication skills, integral to personal, social and professional interaction.

#### ENG(H)-102 AECC2 (Alternative English)

**CO1** : Introducing students to some of the most representative prose pieces and short stories in the western literary and cultural canon.

## ENG(H)-102 GE1 (Language Literature and Culture)

- **CO1**: Acquainting students with the basic concepts of linguistic ,its characteristics, its function.
- **CO2**: Enabling students to comprehend the impact of social and cultural aspects on language and communication.

#### BAII

## ENG(H)-202 GE2 (Media and Communication Skills)

CO1 : Introducing students to media and communication skills.

CO2: Helping out students to opt for a career in journalism, television or digital media.

#### **BA III**

#### ENG(H)-302 GE3 (Text and Performance)

CO1 : Enabling the students to understand the link between text and contents.

CO2: Acquainting students with the technical aspects of performance.

#### BA IV ENG(H)-402 GE4 (Contemporary India: Women and Empowerment)

- **CO1** : Acquainting students with gender issues, related to its constitution, legislation, resistance and marginalization in the pan Indian Context.
- **CO2** : introducing students to women movements and understand the marginalized section like Dalit woman and tribal groups.

## BA ENGLISH (Non Honours) BA I

#### ENG(NH)-101 (Writing Skills I)

CO1 : Developing the writing skills of students

#### ENG(NH) DSC 1A (The Individual and Society)

- CO1 : Sensitizing students to the issue of caste/class,race, gender,violence.
- **CO2**: Acquainting students with some social issues including the politics of how these are constructed.

#### **BA II**

#### ENG(NH)-201 (Writing Skills II)

- CO1 : Enhance the speaking and listening skills of students.
- CO2 : Making student aware of different genres like feature article, questionnaires, essay etc.

## ENG(NH) DSC 1B (Modern Indian Literature)

CO1 : Introducing learners to modern Indian Literature from Premchand to Mahasweta Devi.

## **BA III**

## ENG(NH) DSC 1C (British Literature)

**CO1**: Familiarising students with the best of British literature from the Renaissance to the 19<sup>th</sup> Century.

## ENG(NH) 301 SEC 1 (English Language Teaching (ELT)

**CO1**: Acquainting students with the methodologies of teaching English in classroom situation.

CO2: Acquainting students with the tools and strategies of ELT

## ENG(NH) 302 SEC 2 (Soft Skills)

CO1: Developing the soft skills of students required for professional development

## **BAIV**

## ENG(NH) DSC 1D (Literary Cross Currents)

CO1: Introducing students to literary text across culture and space.

#### ENG(NH)-401 (Alternative English)

- **CO1**: Acquainting students with the issues having contemporary relevance, pertaining to race, class, gender and environment
- CO2: Enabling students to appreciate the complexity and diversity of human condition

#### ENG(NH)-401 SEC3 (Creative Writing)

CO1: Enhance the skills of creative writing

#### ENG(NH)-402 SEC4 (Business Communication)

**CO1**: Familiarising students with the comprehensive view of communication, its scope and importance in business

CO2: Acquainting students with the basic forms, formats and techniques of business writing.

## Programme Specific Outcome (PSO's) B.A In History (Honours Programme) B.A. History (Core)

PSO1- To develop an understanding about the political, social and economic history of India and the World in a comprehensive manner.

PSO2- Studying about the different developments in history in specific periods like Ancient, Early Medieval, Medieval and Colonial period.

PSO3- Developing an understanding about the sources, methods and different interpretations and approaches of History.

PSO4- To study the different aspects of regional history viz. Assam History, relating to different periods.

PSO5- To know about the origin and development of the New World. i.e. The United States of America.

# Course Outcomes (CO's) B.A. in History

## **Ist Semester**

#### HISHC101 Course Title: HISTORY OF INDIA- I-

The objective of this course is to analyze the various source materials for the reconstruction of Ancient Indian History and the approaches of historical reconstruction.

# HISHC102 Course Title: SOCIAL FORMATIONS AND CULTURAL PATTERNS OF THE ANCIENT WORLD-

The students will be acquainted with the evolution of humankind, the beginning of food production, the Bronze Age., advent of iron, the slave society in ancient Greece

#### **B.A. 2nd Semester**

## HISHC103 Course Title: HISTORY OF INDIA II-

The objective of this course is to acquaints the students with agrarian economy, process of state formation, the growth of urban centres in northern and central India and the Deccan etc.

#### HISHC104 Course Title: SOCIAL FORMATIONS AND CULTURAL PATTERNS OF THE MEDIEVAL WORLD-

The learners will be acquainted with the Roman Empire, slave society, the cultural and trade and o Economic development in Europe from 7th to 14th centuries.

#### **B.A. 3rd Semester**

HISHC105 HISTORY OF INDIA III (c. 750 -1206)- To acquaint the students with the political, agrarian, trade and commerce and relious system of Early India.

*HISHC106 RISE OF THE MODERN WEST – I-* To study about the different changes and developments in Medieval Europe.

HISHC107 PAPER VII: HISTORY OF INDIA IV (c.1206 - 1550)- Understanding about different aspects of the Sultanate period of Medieval Indian History.

#### **B.A. 4th Semester**

**HISHC108 Course Title: RISE OF THE MODERN WEST- II-** To acquaint the students with the developments in world history in the early colonial period from the 17<sup>th</sup>-18<sup>th</sup> century.

HISHC109 PAPER IX: HISTORY OF INDIA V (c. 1550 - 1605)- Understanding about different aspects of the Mughal period of Medieval Indian History.

HISHC1010 PAPER X: HISTORY OF INDIA VI (c. 1605 - 1750s)- To study the sources, political culture, visual culture, trade and commerce during the Mughal period and to understand the political developments in the reign of Aurangzeb.

## **B.A.** 5<sup>th</sup> Semester

HISHC1011: History of Modern Europe -I- (c. 1780-1919)- To study about the different political movements in Europe from the Eighteenth to the Twentieth Century.

HISHC1012 Course Title: HISTORY OF INDIA VII (c. 1750 - 1857)- To acquaint the students with the theories, ideology and the economic repercussions of the British rule in India and to study about the resulting revolts.

**HISHDSE501 Course Title: EARLY AND MEDIEVAL ASSAM TILL 1826**-To introduce the students to the history of Assam with respect to the ancient and specifically the medieval period.

**HISHDSE502 Course Title: HISTORY OF MODERN ASSAM: 1826 – 1947-** To study about the fall of the Ahom monarchy and the political developments resulting in the establishment of the British rule in Assam. The paper also will help understand the struggle for freedom in Assam.

# B.A. 6<sup>th</sup> Semester-

HISHC1013 Course Title: HISTORY OF INDIA VIII (c. 1857 - 1950)- To develop an understanding about the cultural changes and the development of Nationalism in India in the colonial period leading to independence.

HISHC1014 Course Title: HISTORY OF MODERN EUROPE II (c. 1780 -1939)- To study about the changes from feudalism to capitalism and development of different political, cultural and intellectual ideologies in the Modern Europe.

HISHDSE601 Course Title: Social and Economic History of Assam- To understand about the economic and social developments in early, medieval and colonial Assam.

**HISHDSE602 Course Title: Historiography-** To develop an understanding about the sources, meaning and scope of history. To know about the evolution of historiography and the historical traditions in early, medieval and colonial Assam.

HISHDSE603 Course Title: HISTORY OF THE UNITED STATES OF AMERICA (c.1776-1945)- To know about the colonial settlement in America and the political events till the twentieth century.

## Programme Specific Outcome (PSO's) B.A In History (Non- Honours Programme)

#### **B.A. History (Pass Course)**

PSO1- Knowing about the political, social and economic history of India and the World.

PSO2- Developing an idea about different periods of history in relation to European, Indian and Assam history.

PSO5- Students will learn about the different branches of history like environmental history, women's history etc.

#### Course Outcomes (CO's)

**B.A. Ist Semester** 

**HISGE 1: History of Assam 1228-1826-** Students will learn about the political, economic and social history from the 13th century to the occupation of Assam by the English East India Company in the first quarter of the 19th century.

**HISGC101: History of Ancient India** (**DSC**)- The paper will acquaint the students with the emergence of state system in north India, the development of imperial state structure, the state formation in the Deccan and in South India in the early period

## **B.A.** 2<sup>nd</sup> Semester

**HISGE 2: HISTORY OF INDIA FROM THE EARLIEST TIMES TO 1526-** The students are provided with a general outline of the history of India from the earliest times to the coming of the Mughals in India in the first quarter of the 16th century.

**HISGC201 COURSE TITLE: History of Medieval India (DSC)-** The paper will acquaint the pupils with political development in India between 1200 and 1750. It helps the pupils to understand the state in medieval times, administrative apparatus and society, economy and culture of India in the pre-modern period

#### **B.A. 3rd Semester**

**HISGE 3 HISTORY OF INDIA:** 1526 – 1947- The paper aims to provide a comprehensive idea about the Mughal rule in India, the disintegration of the kingdom and the establishment of the colonial rule in India.

HISGC301 COURSE TITLE: History of Modern India- To learn about the history of modern India under the British rule.

## **B.A.** 4<sup>th</sup> Semester

HISGE 4 HISTORY OF MODERN ASSAM: 1826 –1947- Students will gain an idea about the history of colonial Assam and the freedom movement in the state.

**HISGE 4.2 COURSE TITLE: HISTORY OF EUROPE: 1453-1815-** An understanding about the different political, social and economic movements in Europe from the 15<sup>th</sup> to the 19<sup>th</sup> Century.

HISGC401 COURSE TITLE: EARLY AND MEDIEVAL ASSAM TILL 1826- Students will be introduced to the history of Early and Medieval Assam through this paper.

# **B.A.** 5<sup>th</sup> Semester

**HISGE5 COURSE TITLE: Women in Indian History-** The paper educates the students about the meaning, origin and development of women's history. It also introduces

**HISGDSE1 COURSE TITLE: RISE OF MODERN WEST-** To study about the different political and cultural changes and developments from Medieval to Modern Europe.

# **B.A.** 6<sup>th</sup> Semester

**HISGDSE 2.1 COURSE TITLE: HISTORY OF EUROPE: 1815 – 1945-** Students will learn about the major political events in Modern Europe.

HISGDSE 2.2 COURSE TITLE: Polity, Society and Economy of Modern Assam (1826-1947)- Students will gain an idea about the condition of polity, society and economy in colonial Assam.

**HISGE6 COURSE TITLE: Environmental History:** Students are introduced to the concept of Environmental History through this paper. The paper helps in understanding environmental movements and issues in Modern India.

## Programme Specific Outcomes (PSOs)

B.A. (CBCS) Political Science (PSC),

PSO1. 1. The programme is acquaint the students of Political Science with the recent trends and development of Political Theory

2. The programme is acquaint the students of Political Science with the Constitutional Government and Democracy in India with the constitutional design of states structure and institutions.

3. The programme is acquaint the Generic Students of Political Science with the Nationalism in India reflecting the struggle of Indian people against colonialism.

4. The programme is acquaint the DSC Students of Political Science with the Understanding

Political Theory with aspect of conceptual analysis.

PSO2. 1. The programme is acquaint the students of Political Science with the Political Theory: Concepts and Debates with normative concept of political theory.

2. The programme is acquaint the students of Political Science with the Political Process in India significantly from constitutional legal rules.

3. The programme is acquaint the Generic Students of Political Science with the Feminism Theory and Practice explain contemporary debates on feminism.

4. The programme is acquaint the DSC Students of Political Science with the Indian Government and Politics reflecting constitutional development of India.

PSO3. 1. The programme is acquaint the students of Political Science with the Introduction to Comparative Government and Politics.

2. The programme is acquaint the students of Political Science with the Perspectives on Public Administration.

3. The programme is acquaint the students of Political Science with Perspectives on International Relations and World History

4. The programme is acquaint the Generic Students of Political Science with the Governance: Issues and Challenges.

5. The programme is acquaint the DSC Students of Political Science with the Comparative Government and Politics.

PSO4. 1. The programme is acquaint the students of Political Science with the Political Processes and Institutions in Comparative Prespectives.

2. The programme is acquaint the students of Political Science with the Public Policy and Administration in India.

3. The programme is acquaint the students of Political Science with Global Politics.

4. The programme is acquaint the Generic Students of Political Science with the Politics and Globalization.

5. The programme is acquaint the DSC Students of Political Science with the Introduction to International Relations.

PSO5. 1. The programme is acquaint the students of Political Science with the Classical Political Philosophy.

2. The programme is acquaint the students of Political Science with the Indian Political Thought -I

3. The programme is acquaint the students of Political Science with Contemporary Politics in Assam.

4. The programme is acquaint the students of Political Science with Human Rights in a Comparative Perspectives.

5. The programme is acquaint the Generic Students of Political Science with Reading Gandhi

6. The programme is acquaint the DSC Students of Political Science with the Administration and Public Policy: Concepts and Theories.

PSO6. 1. The programme is acquaint the students of Political Science with the Modern Political Philosophy.

2. The programme is acquaint the students of Political Science with the Indian Political Thought -II

3. The programme is acquaint the students of Political Science with India's Foreign Policy in a Globalizing World.

4. The programme is acquaint the students of Political Science with Understanding Global Politis.

5. The programme is acquaint the Generic Students of Political Science with Human Rights, Gender and Environment

6. The programme is acquaint the DSC Students of Political Science with the Democracy and Governance.

#### *Course Specific Outcomes (CSOs)* B.A. (CBCS) Political Science (PSC),

CSO1. C-01: The Course designed to introduce the students to the idea of political theory, its history and approaches, and an assessment of its critical and contemporary trends.

C-02: The Course designed to introduce the students to the constitutional design of states structures and institution, and their actual working over time

GE-1A: The course design to introduce to help the students to understand the struggle of Indian people against colonialism. Its seek to achieve the understanding by looking at struggle from different theoretical perspectives that highlight its different dimensions.

DSC 1: This course to introduce certain key aspects of conceptual analysis in political theory and the skill required to engage in debates surrounding the application of the concepts. CSO2. C-03: The Course designed to introduce the students to familiarizing with the basic normative concepts of political theory. Its concepts each related to a crucial political issue and require analysis with the aid of our conceptual understandings.

C-04: The Course maps the working of modern institutions, premised on the existence of an individuated society, in a context marked by communitarian solidarities, and their mutual transformation thereby.

GE-2A: The course design to introduce to help the students to understand the contemporary debates on feminism and the history of feminist struggles, construction of

gender and understanding of complexity of patriarchy and goes on analysis theoretical debates within feminism.

DSC 2: The course design to introduce to help the students to understand of Political Science with the Indian Government and Politics reflecting constitutional development of India.

CSO3. C-05: The Course designed to introduce the students to familiarizing with the concepts and approach to the study of comparative politics.

C-06: The Course designed to introduce the students to familiarizing with the historical context with an emphasis on the various classical and contemporary administrative theories.

C-07: The Course designed to introduce the students to familiarizing with the most important theoretical approaches for studying International Relations and historically contextualizing the evolution of the International State system before discussing the agency structure problem through the levels of analysis approach

GE-3A: The course design to introduce to help the students to understand the Governance: Issues and Challenges with concepts and different dimensions of governance highlighting the major debates in the contemporary times.

DSC 3: The course design to introduce to help the students to understand to acquaint the Comparative Government and Politics.

CSO4. C-08: The Course designed to introduce the students to trained up in the application of comparative methods to the study of politics.

C-09: The Course designed to introduce the students to the interface between public policies and administration in India.

C-10: The Course designed to introduce the students to the key debates on the meaning and nature of globalization by addressing its political, economic, social, cultural and technological dimensions.

GE-4A: The course design to introduce to help the students to understand the divers background understand the process of globalization from a political perspectives.

DSC 4: The course design to introduce to help the students to understand to the Introduction to International Relations.

CSO5. C-11: The Course designed to introduce the students to Greek antiquity and familiarizing the manner in which the political question first posed.

C-12: The Course designed to introduce the students to the basic focus of study is on individual thinker whose ideas are however framed by specific themes.

C-13: The Course designed to introduce the students with the politics of contemporary Assam.

C-14: The Course designed to introduce the students with human rights with specific and contemporary issues in a comparative perspectives.

GE-4A: The course design to introduce to help the students to understand the conceptual and argumentative structure and to helped them acquire the skills to locate the text in a broder intellectual and socio-historical context.

DSC 4: The course design to introduce to help the students to understand to the Introduction to International Relations.

CSO6. C-15: The Course designed to introduce the students to the manner in which the questions of politics have been posed in terms that have implication for larger question of thoughts and existence.

C-16: The Course designed to introduce the students to modernity of Indian Political Thoughts and varied social and temporal context.

C-17: The Course designed to introduce the students with the domestic sources and the structural constrains on the genesis.

C-18: The Course designed to introduce the students with interesting and insightful way of knowing and thinking world around them

GE-5A: The course design to introduce to help the students to understand the conceptual and argumentative structure and to Human Rights, Gender and Environment.

DSC 5: The course design to introduce to help the students to understand to the Democracy and Governance of India .

## Programme Specific Outcome (PSOs) BA in Education

- PSO 1- The Programme (Education) is multidimensional in nature and it provides knowledge of diverse subject to the students.
- PSO 2- The programme also provide the practical and firsthand experience of different subject.

## <u>Course Outcomes (COs)</u> <u>B A in Education, Honours Course (CBCS)</u>

#### I SEM

## EDNH C1(101) - Philosophical Foundations of Education

- This course will help the students to describe the modern concept, aims, functions and role of Philosophy in Education.
- The students will be able to explain the basic concepts of both Indian and Western Philosophy and their influences in Education.

#### EDNH C 2(102) - Sociological Foundations of Education

- This course enables the students to understand the concept, approaches and theories of educational sociology.
- It also helps the students to understand and elaborate various aspects related to social groups, role of education in social changes, social development and impact of different political ideologies on education.

## Honours Course (CBCS) <u>II SEM</u>

EDNH C 3(201) – Psychological Foundations of Education

- To enable the students to understand the concept, nature and scope of Psychology, uses of Educational Psychology.
- It will help the students to know about the influence of growth and development in education, to understand concept, variable, types and theories of Learning, Intelligence, Creativity, and personality.
- It helps to understand the concepts of mental health and hygiene for adjustment in society and measures of mental health in school.

EDNH C4 (202)- Educational Administration and Management

- The course will help to enable the students to know the concept, types and modern trends of Educational management.
- It will help the learner to explain the concept, principles, styles of leadership and its implication in education.

 To develop and understanding of the importance of Educational Planning, Educational Supervision and to ensure quality in educational management. Honours Course (CBCS)

# III SEM

## EDNH C5 (301) - Great Educators and Educational Thoughts

- To develop and understanding of the development of educational thought and make conscious of the contribution of educators of different countries to educational theory.
- It will help the students to explain the relevance of the educational thoughts of different renowned educationist and philosophers.

## EDNH C6 (302) - Educational Measurement and Evaluation

- ✤ To develop understanding of the meaning, nature, scope and need of measurement and evaluation.
- The course will help the students to describe some specific tools to measure achievement, intelligence, personality and aptitude.
- To develop and understanding of the meaning, nature and application of different statistical measures and their uses in measurement and evaluation in education.

EDNH C7 (303) – Experimental Psychology and Laboratory Practical

- The students will able to know the concept, scope and need of Experimental psychology in psychology and education.
- It enables the students to understand about the concept, characteristics, types and process of conducting and reporting of experiment/ practical on Memory, Attention, Learning, Personality and Intelligence.

## Honours Course (CBCS)

## IV SEM

EDNH C8 (401) - Education in Pre - Independent India

- To helps the students to gather knowledge about the development of ancient Indian Education particularly Vedic education, Buddhist education and education system in Medieval period.
- This course will definitely helps to evaluate the education system during British period with special emphasis on the commissions and committees.

EDNH C9&C10 (402& 4020) - A. Techniques of Teaching. B. Practice Teaching

- ✤ To develop and understanding of the concept and Principles of teaching learning process, role of teacher in different phases of teaching, importance of lesson plans for teachers and students and also different methods and approaches of teaching along with the knowledge of teaching different subjects in Elementary and Secondary level (Micro and Macro Teaching skills).
- It will enable the students to demonstrate some teaching skills in real classroom situation and help to prepare lesson plans for Micro teaching and Practice teaching

## Honours Course (CBCS) V SEM

## EDNH C11(501) - Education in Post Independent India

The course will provide knowledge to students about the development of Indian Education, Educational changes in India at the time and since Independence, recommendations of different commissions and committees in the development of education after independence and recent educational development in India.

## EDNH C12 (502) - Education in World Perspective

- The course will enable the students about the concept, nature, scope and purposes, methods of comparative education,
- To develop and understanding of the educational system of their own country and comparative idea of own education system with other countries (UK, USA, Japan)of the globe on different dimension such asorganization, administration, objectives, examination system, vocational and teacher education etc.

## DSEED I (501) – Guidance and Counselling

- The course will enable the students about the concept, nature, scope and purposes, characteristics, functions, basic principles, types and areas of guidance and counseling.
- To develop and understanding of the various tools and techniques of guidance and qualities and role of a counselor.

## DSEED II (504) – Mental Health Issues

- The course will enable the students about the concept of mental health and hygiene in the emerging society, role of different agencies of society and their impact on personality development of individual.
- It will help to develop an understanding of the psychological and maladjustment problems of people, various components of Positive psychology and its impact in teaching learning process, and role of Yoga in day to day life for holistic health.

## Honours Course (CBCS) VI SEM

## EDNH C13 (601) - Emerging Trends in Indian Education

- The course will enable the students about the Constitutional provisions for education, challenges of Indian education in different levels and role of the Constitution in equalizing educational opportunities in Indian Society.
- To develop an understanding of the new perspective of education-Environmental education, Inclusive education, Gender education, adult education, Value education, Human Right education, Population education etc.
- The course will help the students to examine and evaluate the initiatives taken by Government, political influences on national education system and role of International agencies in development of education.

## EDNH C14 (602) – Child and Adolescent Psychology

The course will enable the students about the significance of a study of childhood and adolescent at present.

It will help to understanding of the developmental changes of childhood and adolescence, effect of family dynamics and role of society in monitoring and guiding young children in their all-round development of personality.

## DSEED I (601) - Human Rights Education

- The course will enable the students about the concept, definition, nature, scope, theories and constitutional perspective of Human rights.
- It will develop an understanding of the concepts, objectives, principles, need, curriculum, methods, activities, promoting factors, basis (societal, political, regionalism etc.) and role of different agencies of Human rights education.

## DSEED II (603) - Gender and Education

- The course will enable the students about the concept and nature of gender and its related terms, and also the gender biases and gender inequality in family, school and society.
- It will helps to develop and understanding of the gender issues related to school education and analyze the laws and policies related to gender equality.

# **Non-Honours Course (CBCS)**

I SEM

## EDCN (101) - Philosophical Foundations of Education

- ✤ This course will help the students to describe the modern concept, aims, functions and role of Education and Philosophy in Education.
- The students will be able to explain the basic concepts of both Indian and Western Philosophy and their influences in Education.

## GEED (101) - Guidance and Counseling

- The course will enable the students about the concept, nature, scope and purposes, characteristics, functions, basic principles, types and areas of guidance and counseling.
- To develop and understanding of the various tools and techniques of guidance and qualities and role of a counselor.

## MD (101) – Unit IV: Basics of Education and Pedagogy

- The course will enable the students to earned knowledge about types of education, recent modes of education, and concepts of developmental psychology, hereditary and environmental factors effecting human development.
- ✤ It will help the students to know about the concepts and factors of learning, adjustment, problems of adjustment, mechanism of adjustment.
- ✤ It will helps to develop an understanding of principles of teaching and learning, methods and approaches of teaching, use of IT, ET and different audio visual aids in modern classroom teaching etc.

## Non-Honours Course (CBCS) <u>II SEM</u>

EDCN (201) - Psychological Foundations of Education

- To enable the students to understand the concept, nature and scope of Psychology, uses of Educational Psychology.
- It will help the students to know about the influence of growth and development in education, to understand concept, variable, types and theories of Learning, Intelligence, Creativity, and personality.
- It helps to understand the concepts of mental health and hygiene for adjustment in society and measures of mental health in school.

## GEED (202) – Gender and Education

- The course will enable the students about the concept and nature of gender and its related terms, and also the gender biases and gender inequality in family, school and society.
- It will helps to develop and understanding of the gender issues related to school education and analyze the laws and policies related to gender equality.

## Non-Honours Course (CBCS) <u>III SEM</u>

## EDCN (301) - Sociological Foundations of Education

- This course enables the students to understand the concept, approaches and theories of educational sociology.
- It also helps the students to understand and elaborate various aspects related to social groups, role of education in social changes, social development and impact of different political ideologies on education.

## GEED (302) – Mental Health Issues

- The course will enable the students about the concept of mental health and hygiene in the emerging society, role of different agencies of society and their impact on personality development of individual.
- It will help to develop an understanding of the psychological and maladjustment problems of people, various components of Positive psychology and its impact in teaching learning process, and role of Yoga in day to day life for holistic health.

SEC 1.1- Basics of Teaching in Elementary Level

- The course will enable the students about the concept of elementary education and constitutional provisions related to this stage, and also the different scheme sponsored by Centre and State.
- It will help to develop an understanding of the concept of human growth and development, characteristics in different stages, and behavioral taxonomy of child.
- The course will also provide a idea to the students about curricular and cocurricular activities and examination and evaluation system in education.

## Non-Honours Course (CBCS) IV SEM

EDCN (401) Emerging Trends in Indian Education

- The course will enable the students about the Constitutional provisions for education, challenges of Indian education in different levels and role of the Constitution in equalizing educational opportunities in Indian Society.
- To develop an understanding of the new perspective of education-Environmental education, Inclusive education, Gender education, adult education, Value education, Human Right education, Population education etc.
- The course will help the students to examine and evaluate the initiatives taken by Government, political influences on national education system and role of International agencies in development of education.

GEED (401) - Economics of Education

- The course will enable the students about the concept, scope, importance and different concepts used in and historical development of economics of education.
- It will develop an understanding of the concept of Education as good, demand and supply, utility of education, investment in education, return on investment in education, types of educational cost, human capital formation, education financing, educational planning etc.

# Non-Honours Course (CBCS)

## V SEM

EDDSEN (505) - Guidance and Counseling

- The course will enable the students about the concept, nature, scope and purposes, characteristics, functions, basic principles, types and areas of guidance and counseling.
- To develop and understanding of the various tools and techniques of guidance and qualities and role of a counselor.

#### GEEDN (501) - Education in Pre - Independent India

- To helps the students to gather knowledge about the development of ancient Indian Education particularly Vedic education, Buddhist education and education system in Medieval period.
- This course will definitely helps to evaluate the education system during British period with special emphasis on the commissions and committees.

## SEC 1.2- Aspects of Teaching Learning Process

- The course will enable the students about the concept, nature of teaching learning process, maxims of teaching, different approaches of teaching and learning.
- This course will definitely helps the students to know about lesson plan, use of audio visual aids, organization and management of elementary school, and about the concept and education of exceptional children.

## Non-Honours Course (CBCS) <u>VI SEM</u>

## EDDSEN (604) - Child and Adolescent Psychology

- The course will enable the students about the significance of a study of childhood and adolescent at present.
- It will help to understanding of the developmental changes of childhood and adolescence, effect of family dynamics and role of society in monitoring and guiding young children in their all-round development of personality.

## GEEDN (603) - Gender and Education

- The course will enable the students about the concept and nature of gender and its related terms, and also the gender biases and gender inequality in family, school and society.
- It will helps to develop and understanding of the gender issues related to school education and analyze the laws and policies related to gender equality.

## Programme Specific Outcomes(PSO'S) B.A. Assamese(ASMM- Honours)

- PSO1. History of Assamese literature especially old Assamese Literature
- PSO2. History of Assamese literature especially modern Assamese Literature
- PSO3. Introduction to linguistics.

PSO4. Poetics.

PSO5. Literary Criticism.

PSO6. Selection for Assamese poetry.

PSO7. Studies on the Culture of Assam.

PSO8. Theory & Practice of Comparative Literature.

PSO9. Indo-Aryan languages & Assamese

PSO10. Selection from Assamese Prose

PSO11. Assamese Drama.

PSO12. Studies on Assamese Linguistics

PSO-DSE 1. Assamese Grammar, Lexicon & Idiomatic

PSO-DSE 2. Introduction to Indian Literature

PSO13. Selection from Assamese Prose

PSO14. Language & Script of Assam

PSO-DSE 3. Introduction to World Literature

PSO-DSE 4. Project

#### Course Outcomes (CO'S) B.A. Assamese (Honours)

#### **BA-1**

#### ASMM- C-1 :: Asomiya Sahityar Buranji (Old Period) : (6 Credit)

CO1: Asomia Sahityar Yug bibhajan

CO2: Asomiya Loksahitya, Pratna Asomiya

CO3: Prak Sankari yug

CO4: Sankari Yugar Sahityar Bosistha

CO5: Sankaruttar yug

#### ASMM- C-2 :: Asomiya Sahityar Buranji (Modern Period) : (6 Credit)

CO1: Adhunik Asomia Sahityar Potobhumi

CO2: Adhunik Asomiya Bhakhar Sahityik Pratistha

CO3: Junaki aru Uttar Jonaki Starar Sahitya

CO4: Ramdhenu Jugar As Sahitya: Patabhumi-Baisisthya

CO5: Sampratik Kalar Asomiya Sahityar Parichoy

#### BA-1I

#### ASMM: C-3:: Bhakhabijyanar Parichay (6 Credit)

CO1: Bhakhar Sangya, Upadan, Baishistya & Bhakhar Bibhinn Rup

CO2: Bhakhabijyanar Sangya, Bhakhabijyanar Adhyayan Paddhati

CO3: Bhakhabijyan Addhyayanar Star

CO4: Bhakhar bargikarana aru Prithivir Bhakha pariyal

CO5: Bhakha Samparkiya Chinta-charchar Itihash

#### ASMM: C-4 :: Sahityatatwa (Poetics)

CO1: Sabdasakti, Rasa, Dhwani, Gun, Ritir sadharan parichay

CO2: Dhrubabad, Rahasyabad Ramanyasabad, Bastavbad, Adhunikatabadar sadharan parichay CO3: Sabdalangkar aru Iyar prakar: Arthalangkar aru Iyar prakar

CO4: Chandar upaman: Parba, Charan, Stawak

CO5: Asamiya Chandariti : Swarbritta Matrabritta, Jougik, Bibidh Chandasajja : Pada, Dulari, Lechari, Amitakkkhar, Muktak

#### BA-1II

#### ASMM- C-5 :: Sahitya Samaluchana : (6 Credit)

CO1: Sahityar Sangya, Sahityar Shrenibibhag

CO2: Samaluchanar Sangya aru Swarup, Samaluchakar Awasyakiya Gun, Sahitya Samaluchanar Paddhati-(Aitihahik, Bishlekhanatmak, Tulanamulak)

CO3: Bibhina Sahitya Rupar(genra) Sangya aru Swarup (A)Kobita, Natak & Ekankika

CO4: Bibhinna Sahitya Rupar(genra) Sangya aru Swarup (B)Upanyash, Chutigalpa & Laghurachana

#### ASMM- C-6 :: Asomiya Kobitar Chaneki : (6 Credit)

CO1: Asomia kobitar sangkhipta itihash CO2: Asomiya Lokakobita : (A)Jikir- "Barmahar Ter Geet"Sankhya-7, (B)Naharar Malita-" Barmahar Ter Geet"Sankhya-1

CO3: Pratna Asomiya Kobita, Charjyapad

CO4: Purani Asomiya Kobita: (A)Kandali Ramayana (B) Borgeet(Shankardev) (C)Namghosha (D)Usha Porinoy

CO5: Adhunik Kalor Asomiya Kkobita: (A)Madhuri-Chandrakumar Agarwala, (B)Eiyat Nodi Achil-Nabakanta Boruah, (C)Ulomi Thaka Gulapi Jamur Lagna, (D)Chuli Nabandhiba Jagyaseni-K.D. Hazarika

#### ASMM- C-7 :: Asomar Sangskriti Adhyayan : (6 Credit)

CO1: Sangskritir Sangya, Swarup & Upadan, Sangskritir Adhyayanar Swarup

CO2: Asomar Nrigusthisamuhar Porichoy, Asomiya Sanskritir Samanwayat Bibhinna Nrigusthiya Sanskritir Awadan

CO3: Asomar bibhinna janagusthir lokasar & Lokbiswash(Mising & Sonowal Kachari)

CO4: Paramparagata Asomar Sajpar & Ai-Alankar: (Bodo & Karbi)

CO5: Asamar Sthapatya-Bhaskarjya

#### BA-1V

#### ASMM: C-8 :: Tulanamulak Sahityar Paddhati aru Prayug (6 Credit)

- CO1 : Tulanamulak Sahityar Uthpoti aru Parichoy
- CO2 : Tulanamulak Sahitya Adhyayanar Pradhan Dikh
- CO3 : Bharatiya Prekshapatat Tulanamulak Sahitya
- CO4 : Asomat Tulanamulak Sahitya

CO5 : Tulanamulak Sahityar Adhyayan : Sahitya aru Sukumar Kalar Anya Sakhar Samparkajarita Adhyayan

#### ASMM: C-9 :: Bharatiya Aryabhak ha aru Asomia Bhakha (6 Credit)

- CO1 : Bharatiya Aryabhakhar Kramabikakhar Ruprekha
- CO2 : Bharatiya Aryabhakhar Bibhinna Starar Nirbachita Paath
- CO3 : Sanskrita-Pali-Prakrit Bhakhar Tulana
- CO4 : Asomiya Bhakhar Udbhav aru Bikash

#### ASMM: C-10 :: Asomiya Gadyar Chaneki (6 Credit)

- CO1 : Asomiya Gadyar Udbhav aru Bikash
- CO2 : Prachin Asomiya Gadya : Nirbachita Path
- CO3 : Arunudoi Yugar Asomiya Gadya : Nirbachita Path
- CO4 : Jonaki Yugar Gadyar : Nirbachita Path
- CO5 : Sampratik Kalar Asomiya Gadya

#### BA-V

#### ASMM: C-11 :: Asomiya Natak (6 Credit)

- CO1 : Asomiya Natya Sahitya : Sanshipta Itisah
- CO2 : Purani Asomia Natak
- CO3: Adhunik Asomia Natak (K)
- CO3 : Adhunik Asomia Natak (Kha)

#### ASMM: C-12 :: Asomia Bhakhar Bhakhabaijyanik Adhyayan (6 Credit)

CO1 : Bagindriyar Parichai, Dhwani, Barna, Upadhwanir Sanjya aru Dhwani Pariwartanar Niyam

CO2 : Asomia Bhak har Dhwanitattwik Bislekhan

CO3 : Asomia Bhakhar Ruptattwik Bislekhan

#### CO4 : Asomia Bhakhar Byakarangata Bikhai

#### CO5 : Asomia Bhakhar Bakyatattwik Bislekhan

#### ASMM: DSE 1 :: Asomia Byakaran, Abhidhan aru Jatuwa Prayug (6 Credit)

- CO1 : Asomia Bhakhar Uchcharan aru Akhar Juntani
- CO2 : Asomia Byakaranar Sadharan Parichai
- CO3 : Asomia Abhidhanar Sadharan Parichai
- CO4 : Paribhakhar Dharana, Prasasanik Paribhakhar Parichai
- CO5 : Asomia Bhakhar Jatunwa Thanch aru Khandabakyar Prayug

#### ASMM: DSE 2 :: Bharatiya Sahityar Parichai (6 Credit)

- CO1 : Bharatiya Sahityar Dharana
- CO2 : Bharatiya Kabitar Chaneki
- CO3 : Bharatiya Chutigalpar Chaneki
- CO4 : Bharatiya Upanyasar Chaneki
- CO5 : Bharatiya Natakar Chaneki

#### BA-VI

#### ASMM: C-13 :: Asomiya Gadyar Chaneki (6 Credit)

- CO1 : Asomia Chutigalpa
- CO2 : Asomia Upanyash
- CO3 : Asomia jivani aru Atma-Jivani
- CO4 : Asomia bhraman Kahini
- CO5 : Asomia byaktigata Rachana aru Bijyan Sahitya

#### ASMM: C-14 :: Asomar Bhakha aru Lipi (6 Credit)

- CO1 : Asomar Bhakhasamuhar sadharan Parichai
- CO2 : Asomia Bhakha aru Upabhakha
- CO3 : Asomar Tibbatabarmia pariyalar Bhakha
- CO4 : Asomia Bhakha aru Aryabhinna Bhakhar Adan-Pradan
- CO5 : Asomia Lipi aru Asomar Anyanya Bhakhar Lipi

#### ASMM: DSE 3 :: Biswa Sahityar Parichai (6 Credit)

- CO1 : Biswa Sahityar Dharana
- CO2 : Abhijyan Sakuntalamar Chaturtha Anka (Kalidas)
- CO3 : Nirbachita Bideshi Galpa
- CO4 : Nirbachita Bideshi Kobita
- CO5 : Nirbachita Bideshi Natak

# ASMM: DSE 4 (B) Project (6 Credit)

CO1 : Project

#### Cours Outcomes(CO'S) B.A. Assamese (General)

#### **BA-1**

#### AECC-2 :: (Honours & Non-Honours) Jugajumulak Asomiya (Communicative Assamese) : (2 Credit)

CO1 : Likhit Jugajug : (A)Sabdabhndar, Bakyaganthani, Bibhinna Sihnar Prayug (B)Bhal Lekhanar Gunawali

CO1 : Moukhik Jugajug : Matar Tibrata, Kathanar Beg, Kanthaswarar Kampan, Uchcharanar Spastata, Uchcharanar Huddhata & Samayik Birati

#### BA-1II

#### MIL-1 (Non-Honours) :: History of Assamese Literature(6 Credit)

CO1: Asomia sahityar yug-bibhajanar Abhakh

CO2: A) Prak sankari yugar sahitya, B) Sankari yugar sahitya, C) Sankaruttar yugar sahitya

CO3: Adhunik Asomia bhakhar sahityik pratistha

CO4: Junaki aru uttar junaki starar sahitya

CO5: A)Yuddhuttar yugar kalar sahityar Abhakh, B) Sampratik Kalar Sahitya

#### BA-1V

## MIL-2 (Non-Honours) :: Asomiya Sahityar Chaneki(6 Credit)

CO1: Kabita CO2: Natak CO3: Gadya CO4: Galpa

CO5: Upanyash

Program Outcomes (POs) Program Specific Outcomes (PSOs) and Course Outcomes (COs) in Bachelor of Science (B.Sc.)

# Programme Outcome (POs) Bachelor in Science (BSc)

**PO1:** To enhance the scientific outlook of the mankind, and capability to interpret the world in a scientific way.

**PO2:** To instill curiousness and sense of inquiry into a student's mind about the whereabouts of the surrounding world with a scientific mindset.

**PO3:** The students will be capable of pursuing their higher studies in different post graduate courses and appearing in various competitive examinations to follow a career of their choice.

**PO4:** The program will encourage the students towards research-oriented careers to develop newer ideas in different fields of science as well as in day-to-day lives.

**PO5:** To develop new technologies, solve practical problems and informed decisions.

**PO6:** The students can develop a deeper understanding of the subjects by learning about their practical applications.

**PO7:** Scientific studies provide deeper insights of understanding the natural phenomena.

PO8: To develop new technologies, solve practical problems and informed decisions.

## Program Specific Outcomes (PSO)

## **B.Sc.** in Chemistry

**PSO1:** The students will be provided a sound knowledge base and laboratory experiences to prepare them for post-graduate studies as well as for careers as professionals in the field of chemistry.

**PSO2:** The students would be able to understand, analyse and solve problems in different units of the course.

**PSO3:** The course will provide the basic skills to handle different laboratory equipments and chemicals with required safety precautions.

**PSO4:** the students will be encouraged to pursue research works in different aspects of chemistry.

## Course Outcomes (CO)

#### B.Sc. in Chemistry

## CHEMISTRY-C-101 (Inorganic Chemistry)

CO1: The students will understand the basic theory about atomic structure.

**CO2:** The students will be able to analyse the periodic transformations of different properties of the elements and their applications.

CO3: They will have the basic understandings of the bonding theories.

## CHEMISTRY-C-101-LAB (Inorganic Chemistry)

**CO1:** The students will be able to handle different laboratory equipments and have the knowledge about titrimetric analysis.

## CHEMISTRY-C-102 (Physical Chemistry)

**CO1:** The students will get the idea of kinetic molecular model of a gas, behaviour of real gases etc.

CO2: The different properties of the liquid state and gaseous states will also be understood.

## CHEMISTRY-C-102-LAB (Physical Chemistry)

**CO1:** The students will be able to apply their understanding of the liquid state properties and ionic equilibrium in laboratory processes.

## CHEMISTRY-C-201 (Organic Chemistry):

**CO1:** Students will be able to develop preliminary knowledge in basic organic chemistry ideas in analysing a reaction.

CO2: They will have the basic understandings of stereochemistry and conformational analysis.

## CHEMISTRY-C-201-LAB (Organic Chemistry):

**CO1:** Students will be introduced to different purification techniques like crystallization, chromatographic techniques etc.

## CHEMISTRY-C-202 (Physical Chemistry):

**CO1:** The students will understand the concepts of chemical thermodynamics and solve the mathematical problems therein.

**CO2**: They will be able to derive relation between the four colligative properties using chemical potential (Thermodynamics derivation).

## CHEMISTRY-C-202-LAB (Physical Chemistry):

**CO1:** The students can apply the understandings of chemical thermodynamics and equilibrium in laboratory processes.

#### CHEMISTRY-C-301 (Inorganic Chemistry):

CO1: Students will be able to understand different metallurgical processes.

CO2: The concepts of acid and bases will be understood.

## CHEMISTRY-C-301-LAB (Inorganic Chemistry):

**CO1:** The students will understand the processes of iodometric titrations and preparation techniques of inorganic molecules.

## CHEMISTRY-C-302 (Organic Chemistry):

**CO1:** The students will develop the understanding of the reactivities of different functional groups like halides, carbonyl groups etc.

## CHEMISTRY-C-302-LAB (Organic Chemistry):

**CO1:** The students would learn the applications of different reactions and functional group tests.

## CHEMISTRY-C-303 (Physical Chemistry):

CO1: Students will be able to understand the concepts of chemical kinetics and catalysis.

**CO2**: They will understand the concepts of phase and phase diagrams for different physical state equilibriums.

## CHEMISTRY-C-303-LAB (Physical Chemistry):

**CO1:** The concepts of kinetics and surface chemistry will be applied in laboratory processes.

## CHEMISTRY-C-401 (Inorganic Chemistry):

**CO1:** Students will get the basic concepts of quantitative aspect of ligand field and MO theory, stability of various oxidation states and emf of transition elements.

CO2: They will understand the properties of transitional metals and inner transitional metals.

CO3: They will understand the role of different metals in biological systems.

## CHEMISTRY-C-401-LAB (Inorganic Chemistry):

**CO1:** Students can apply the knowledge of preparation and purification techniques for inorganic complex.

## CHEMISTRY-C-402 (Organic Chemistry):

**CO1:** Students will gain the knowledge of preparation and properties of nitrogene containing heterocyclic compounds, including alkaloids and tarpenes.

## CHEMISTRY-C-402-LAB (Organic Chemistry):

**CO1:** Students can get the experience for functional group tests and qualitative analysis of organic compounds.

## CHEMISTRY-C-403 (Physical Chemistry);

**CO1:** Students will be able to understand the basic knowledge on electrochemistry, various laws governing electro chemical process and their applications.

CO2: Students will gain the knowledge on electrical and magnetic properties of atoms and molecules.

## CHEMISTRY-C-403-LAB (Physical Chemistry):

**CO1:** Students will gain the practical knowledge on conductometric and potentiometric titrations.

#### CHEMISTRY-C-501 (Organic Chemistry):

CO1: Students will be able to design a synthesis through retrosynthetic approach.

**CO2**: They will understand the chemical basis for biological phenomena and cellular structure, the enzymatic action and the nucleic acids and their role in heredity.

#### CHEMISTRY-C-501-LAB (Organic Chemistry):

**CO1:** Students will be able to perform protein estimation, enzymatic action and DNA estimation experiments.

#### CHEMISTRY-C-502 (Physical Chemistry):

**CO1:** Students will understand the basic concepts of quantum mechanics and qualitative treatment of hydrogen atom and hydrogen like ions.

CO2: They will also be introduced to photochemistry and different molecular spectroscopy techniques.

## CHEMISTRY-C-502-LAB (Physical Chemistry):

**CO1:** Students can learn about UV/VIS spectroscopy and its applications and the use of colorimetry technique in concentration determination.

## CHEMISTRY-C-601 (Inorganic Chemistry):

**CO1:** Students will get the basic concepts of organometallic compounds and their reaction mechanisms.

CO2: They will also get the knowledge on catalytic applications of organometallic compounds.

#### CHEMISTRY-C-601-LAB (Inorganic Chemistry):

**CO1:** Students will learn the qualitative inorganic analysis of mixtures of different cations and anions and the chemistry therein.

#### CHEMISTRY-C-602 (Organic Chemistry):

**CO1:** Students will learn the use of molecular spectroscopic techniques in organic compound analysis.

**CO2**: They will be acquainted with carbohydrate chemistry, and different biodegradable polymers and dyes.

## CHEMISTRY-C-602-LAB (Organic Chemistry):

**CO1:** Students will get the experience on organic qualitative analysis and application of spectroscopy in organic structure determination.

## CHEMISTRY-DSE-501 (Analytical Methods in Chemistry):

**CO1:** Students will get a deeper knowledge on different analytical methods for chemical compounds.

## CHEMISTRY-DSE-501-PRACT. (Analytical Methods in Chemistry):

**CO1:** Students will learn the application of chromatographic techniques in purification in a laboratory scale.

#### CHEMISTRY-DSE-502 (Green Chemistry):

**CO1:** Students will learn about the principles of green chemistry with real life applications and the future trends.

#### CHEMISTRY-DSE-502-LAB (Green Chemistry):

**CO1:** Students will experience the green reaction technologies such as photocatalyst, green solvent etc.

## CHEMISTRY-DSE-503 (Research Methodology for Chemistry):

**CO1:** The students will acquaint themselves with literature survey for research purpose and writing the findings of a research work in a scientific and ethical way after analysis of data. **CO2:** Students will learn about the safe and ethical handling of different chemicals.

#### CHEMISTRY-DSE-601 (Inorganic Materials of Industrial Importance):

**CO1:** Students will understand the working principles of fertilizers, surface coating, silicate industries, batteries etc.

#### CHEMISTRY-DSE-601-LAB (Inorganic Materials of Industrial Importance):

CO1: Students will gain the practical knowledge on different inorganic material analysis.

#### CHEMISTRY-DSE-602 (Industrial Chemicals and Environment):

**CO1:** Students will learn about the impact of industrial chemistry on environment and handling.

CO2: Students will be introduced to the concept of biocatalysts.

#### CHEMISTRY-DSE-602-LAB (Industrial Chemicals and Environment):

CO1: Students will learn about industrial processes in laboratory scale.

#### CHEMISTRY-DSE-603 (Project Work):

CO1: Students will be introduced to a scientific problem and the ways to solve it.

**CO2:** They will be introduced to the basics of data analysis, scientific writing and verbal presenation of their work.

#### CHEMISTRY-SEC-301 (Basic Analytical Chemistry):

CO1: Students will be acquainted with different analysis process like water and soil analysis.

CO2: They will get further knowledge on chromatographic processes.

## CHEMISTRY-SEC-401 (Fuel Chemistry):

**CO1:** Students will get the knowledge of different sources, both renewable and non-renewable sources of fuels and their extractions.

## Programme Specific Outcomes (PSO's) BA/BSc Mathematics

PSO1. Mathematics is a branch and key language of science that able to describe the realworld problems.

PSO2. To develop new mathematical theories and methods and to evolve the new branches of mathematics with co-exist of other branches of science and humanities.

PSO3. Computational knowledge in mathematics provides better insight and interest of the BSc Mathematics students.

## Course Outcomes (CO's) BSc/BA Mathematics (Major CBCS) BSc/BA-I

C1.1. (Calculus)

CO1. Students will be able to use concepts of calculus such as limit, continuity,

differentiation, integration in real life problems, formulation in mathematical models.

CO2. To sketch and plot the graph of various mathematical functions and curves.

C1.2. (Algebra)

CO1. To develop the various algebraic structures on sets.

CO2. To get deeper insight in Matrix algebra and able to apply the theory of matrix algebra in solving real world problems.

#### BSc/BA-II

C2.1. Real Analysis

CO1. To introduce the properties of the number system.

CO2. Describe the various analytical properties such as limit theorems, convergence theorems, convergence test etc.

C2.2. Differential equations

CO1. Students will introduce the new techniques in solving of ordinary differential equations of first order and then the higher order which are highly applicable in engineering problems, mathematical model used in real life problems.

CO2. To learn sketching and plotting of differential equations.

## BSc/BA-III

C3.1. Theory of real functions

CO1. To learn the analytical aspects of mathematical concepts such as limit, continuity, derivatives, integration etc.

C3.2. Group Theory I

CO1. To describe various group structures on sets. To identify the group structures, present in different branches of sciences.

C3.3. PDE and Systems of ODE

CO1. Students will be able to develop mathematical formulations of various physical phenomena using partial differential equations and their solutions.

CO2. To solve systems of linear differential equations related to real world problems using analytical, numerical, and graphical techniques.

## **BSc/BA-IV**

C4.1. Numerical Methods

CO1. To better understandings of the numerical methods such as Bisection, Newton-Raphson etc., and their applications in engineering fields.

C4.2. Riemann Integration and Series of Functions

CO1. To develop a deep and rigorous understanding of Riemann Integration, Beta and

Gamma functions, Series of functions, and theorems related to series convergence.

C4.3. Ring Theory and Linear Algebra I

CO1. The course gives rigorous and thorough analytical concepts and applications of various aspects of linear algebra and analysis with applications.

CO2. Extension of group theory will be learned. Basics of Ring theory, geometric structures, and their links to other branches of mathematics will be taught.

## BSc/BA-V

C5.1. Multivariable Calculus

CO1. To develop a deep and rigorous understanding of Functions of several variables, Line integral, Double Integral, Surface Integral, Volume Integral, and their applications.

C5.2. Group Theory II

CO1. To learn the more concepts of group theory based on preliminary theories.

CO2. Application of group theory in the various field of sciences will learn.

DSE1.1 Analytical Geometry

CO1. Introductory concepts of parabola, ellipse and hyperbola and their sketching.

CO2. To solve mathematical problems using analytical geometry techniques.

DSE1.3 Financial Mathematics

CO1. Students will learn to apply the basic concepts of mathematics in the field of Economics, Finance, and Industry.

DSE2.2 Mechanics

CO1. To develop the mathematical background of mechanics that predict the effects of force and motion.

DSE2.3 Number Theory

CO1. To gain knowledge more about number theory and hence to solve Diophantine equations.

CO2. To define the number theoretic functions.

## BSc/BA-VI

C6.1. Metric Space and Complex Analysis

CO1. To explore the concepts of Topological structures and the generalize theory of Real analysis.

CO2. Students will enable to understand the general theory of complex analysis such as Analytic function, Complex Integrals, Power Series, Poles and Residues.

C6.2 Ring Theory and Linear algebra II

CO1. Students will acquaint with some extensions theory of rings to solve physical problems. CO2. To understand the relationship between operations of linear transformations and corresponding matrices.

DSE3.1 Hydromechanics

CO1. To introduce and explain fundamentals of fluid mechanics which provide the methods for studying the phenomena of physical sciences.

DSE3.2 Linear programming

CO1. To provide a rigorous and complete development of the theoretical and computational aspects of linear programming as well as discussion of several practical applications.

DSE4.1 Mathematical Methods

CO1. Students will learn to analyse and design of continuous time signals and systems using Laplace's and Fourier transformations.

DSE4.3 Probability and Statistics

CO1. Students will learn how to organize and summarized the data through statistical methods. To Assess the strengths of the conclusions and evaluate the uncertainty of physical phenomena using probabilistic concepts.

# Course Outcomes (CO's) BSc/BA Mathematics (Generic CBCS)

# BSc/BA-I

GE1.1. Differential Calculus

CO1. Students will be able to use concepts of calculus such as limit, continuity, differentiation, integration in real life problems, formulation in mathematical models.

# BSc/BA-II

GE2.1. Differential Equation

CO1. Students will introduce the new techniques in solving of ordinary differential equations of first order and then the higher order which are highly applicable in engineering problems, mathematical model used in real life problems.

# **BSc/BA-III**

GE3.1 Real Analysis

CO1. Describe the various analytical properties such as limit theorems, convergence theorems, convergence test etc.

# **BSc/BA-IV**

GE4.1 Algebra

CO1. To describe various group structures on sets. To identify the group structures, present in different branches of sciences.

CO2. Extension of group theory will be learned. Basics of Ring theory, geometric structures, and their links to other branches of mathematics will be taught.

# Programme Specific Outcomes (PSO's) B. Sc Physics (PHY)

**SEM 1:** 

## C-1: Mathematical physics

From this paper students can learn vectors and rules of vector product, triple product, vector differential, ordinary, orthogonal curvilinear and other mathematical applications. Moreover they are able to learn the practical applications by using computing tools.

## C-2:Mechanics

From this student are able to gain basic concepts of mechanics such as fundamental laws of physics, a unique mechanical problem like harmonic oscillator and fundamental knowledge of relativity.

## **SEM-2:**

## C-3:Electricity and magnetism

Students are able to learn basic knowledge of electricity and magnetism and also experimental skill of electrical networking system.

## C-4:Waves and optics

From C-4 they are able to learn basic wave motion and principle of different phenomena like interaction of light.

## **SEM-3:**

## C-5 :Mathematical physics

Mathematics is a useful tool for application of physics. From this paper they can able to learn important theorems like Fourier Series, Frobenius method and some special integrals.

## C-6:Thermal physics

Gives the knowledge of laws of thermodynamics in real world problems.

## C-7:Digital systems and applications

This paper is enable to a student to identify and understand digital electronic principles and systems, and also it can build real life applications using digital systems

## **SEM-4:**

#### **C-8:Mathematical physics**

From this paper they can gain knowledge of complex variables, Cauchy's formula etc. Also with practical applications they achieved use of mathematical methods for physics & Engineer's.

## C-9:Elements of modern physics

This paper appreciated to understand the theory of modern physics. Also they achieved the ability to apply it in solving problems in quantum mechanics.

#### **C-10:**Analog systems and Applications

This paper gave the knowledge of analog of electronic systems.

#### **SEM-5:**

#### C-11:Quantum Mechanics and applications

From this paper students can able to know how quantum mechanics is used to solve physical systems in different areas of science.

#### **C-12: Solid State Physics**

Give the basic concepts of solid state physics, both in theoretical and experimental aspects.

## SEM-6: C-13:Electromagnetic theory

This paper provides the solution of problems of interfaces between media with different boundary conditions.

## C-14:Statistical Mechanics

This paper equipped the students with basic knowledge of statistical mechanics and solutions of physical problems.

## 5<sup>th</sup> Sem:(Students choose)

## DSE -1: Classical mechanics

This paper prepare for the study of modern physics and give knowledge of relativity.

## **DSE-2:**Astronomy and Astrophysics

This paper provide basic knowledge of Astrophysics

6<sup>th</sup> Sem:

## **DSE-3:** Nuclear physics

Develop knowledge regarding nuclear and particle physics.

## **DSE-4:Nano Physics**

This paper will provide fundamental knowledge of Nano particles.

## Semester System

# **Department of Physics**

## Sem-1, PHYM10100: Mechanics and properties of matter

Study of basic concept of matter and it's application and planetary motion.

## Sem-2, PHYM20100: Thermal physics and Waves and Oscillation

Concept of heat and thermodynamics and uses of different laws in day to day life. Effect of sound.

## Sem-3, PHYM30100: Optics:

Different optical instrument that are used in different purpose.

## Sem-3, PHYM30200: Electricity and magnetism

Magnetic effect and different electrical circuit and its instrument that are used for different applications.

## Sem-4, PHYM40100: Mathematical Physics.

This paper gives basic idea about vector calculus, Tensor algebra, Matrices and Calculus of variation.

## Sem-4, PHYM40200:Quantum Mechanics

Quantum Mechanics helps in understanding phenomena found in nature as well as developing technologies on quantum effects like integrated circuits and lasers and also for understanding how individual atoms are joined by covalent bonds to form molecule.

#### Sem-5, PHYM50100: Mathematical Physics.

Differential equation helps the rate of change of quantity, tangent and normal to a curve.

Fourier series gives knowledge on vibration analysis, acoustics, optics, and quantum mechanics.

#### PHYM50200: Electro dynamical and special theory of Relativity.

Electrodynamics: It helps to study the charged body in motion varying electronic and magnetic field.

**Relativity:** Study about the behaviour of object in space and time, existence of Black Hole, to light bounding due to gravity etc.

#### PHYM, 50300: Atomic and Molecular physics.

Students study the structure of atom, it's energy states and it's interactions with other particles and with electric magnetic field.

#### PHYM, 50400: Electronics.

Learn about the uses of electronics devices in computer, telecommunications, in integrated circuit etc.

#### Sem-6, PHYM600100: Statistical Mechanism.

Study the physical and physicochemical systems such as solids, liquid and gases, interfaces etc.

#### PHYM60200: Condensed Matter Physics.

This gives fundamental knowledge of structure of atom and usefulness. Working on materials or devices with application as transistors, memory, battery, LED etc. Knowledge of super conductor and it's application.

#### PHYM, 60300: Nuclear Physics.

It provides information about the structure of nuclear. In nuclear physics several transmutation concepts have been discussed and the use of thermal and fast fission reactors and high intensity particles.

#### PHYM, 60400(430): Laser and it's application.

It gives the idea of production of laser, rays and it's application.

# Programme specific outcomes( PSO's)

## **B.Sc Botany**

#### **PSO I.** Biodiversity (Microbes, Algae, Fungi, Lichen and Archegoniate)

Students will acquire knowledge of different forms of plant life

#### **PSO II. Plant Ecology and Taxonomy**

Students will acquire understanding the interactions of plant life with the surroundings and also to identification, classification and nomenclature of plants

#### **PSO III. Plant Anatomy and Embryology**

Students will acquire understanding of the types of plant tissues their arrangement and also to plant reproduction

## **PSO IV. Plant Physiology and Metabolism**

Students will acquire understanding of the process of water and nutrient uptake in plants and the activities involved in growth and flowering.

## **PSO V. Economic Botany and Plant Biotechnology**

Students will learn the application of various important plants and their products and the application of modern tools and techniques in biology.

## **PSO VI. Environmental Biotechnology**

Students will acquire understanding of the ongoing environmental problems and their control measures and government policies.

# **Course Outcomes (CO'S)**

# **B.Sc BOTANY (Honours)**

## B.Sc I

#### **Core Course I: Microbiology and Phycology**

Students will acquire knowledge on various forms of microbes and algae - their characteristics and economic importance.

#### Core Course II: Biomolecules and Cell Biology

Students will acquire knowledge on molecular organization of life and cellular and molecular processes of life.

#### **B.Sc II**

#### Core Course III: Mycology and Phytopathology

Students will acquire knowledge on the fungal world, different fungal diseases; their economic importances etc.

#### **Core Course IV: Archegoniate**

Students will acquire knowledge on Bryophyte, Pteridophytes, Gymnosperms and Fossil Plants

#### **B.Sc III**

#### Core Course V: Anatomy of Angiosperms

Students will acquire understanding of the structural and anatomical organisations of plant tissues and their development

#### **Core Course VI: Economic Botany**

Students will learn the application of various economically important plants and plant products

## **Core Course VII: Genetics**

Students will acquire understanding of the principles of heredity and different mechanisms of inheritance

#### **B.Sc IV**

#### Core Course VIII: Molecular Biology

Students will acquire understanding of the Biological Macromolecules and various processes involved with these macromolecules

## Core Course IX: Plant Ecology and Phytogeography

Students will acquire understanding of the interaction of plant with its surroundings and also the geographic distribution of different plants

#### **Core Course X: Plant Systematics**

Students will acquire knowledge of identification, classification and nomenclature of higher plants

#### B.Sc V

## Core Course XI: Reproductive Biology of Angiosperms

Students will acquire understanding of the process and mechanisms of plant reproduction

#### **Core Course XII: Plant Physiology**

Students will acquire understanding of different physiological processes in plant life

#### DSE Course - I: Analytical Techniques in Plant Sciences

Students will acquire knowledge on different techniques which can be used to study different Biological processes

#### DSE Course - IV: Industrial and Environmental Microbiology

Students will learn the application of different microbes for industrial purposes and also their role in the environment

#### B.Sc VI

#### Core Course XIII: Plant Metabolism

Students will acquire knowledge of different metabolic processes involved with plant life

#### **Core Course XIV: Plant Biotechnology**

Students will learn the application of modern tools and techniques in Biology

#### **DSE Course – V: Plant Breeding**

Students will acquire knowledge on different methods of plant improvement and breeding techniques

## DSE Course – VI: Natural Resource Management

Students will acquire knowledge of different natural resources and their management practices

# Programme Specific Outcomes (PSOs) B.Sc. Zoology Honours

**PSO1**: Understanding various forms of protozoa and worms and their classification and structural anatomy.

**PSO2**: Understanding fundamentals of ecology and impacts of ecological factors on living organisms.

**PSO3**: Understanding various forms of coelomates, their classification and structural anatomy.

**PSO4**: Understanding the structure and function of a cell as the fundamental unit of life. **PSO5**: Understanding the various forms of chordates declassification and structural anatomy.

**PSO6**: Understanding the complexities of the different coordinating systems of animal body. **PSO7**: Understanding biomolecules of living , their interactions for perpetuation of life.

**PSO8**: Understanding the basic organ systems of Vertebrates and their comparison.

**PSO9:** Understanding the Physiology and working mechanism of the life sustaining organ systems.

**PSO10:** Understanding the various metabolic processes of the body.

**PSO11:** Understanding the cells and biomolecules at their molecular level.

PSO12: Understanding the Mendelian genetics and the factors affecting genetics.

**PSO13:** Understanding the biology related to our embryonic development.

**PSO14:** Understanding the evolutionary biology related to genetics and the factors affecting genetic transfer.

**PSO15:** Understanding the endocrine glands, their structures, hormones, their functions and hormone actions.

**PSO16:** Understanding the classification, morphology and physiology of insects.

PSO17: Understanding the immune system: their types, mechanisms and functions.

**PSO18:** Understanding some parasitic diseases, their host, vectors and treatment.

# Course outcome's (COs) B.Sc. Zoology Honours

## 1<sup>St</sup> Semester

## ZC101T: Non- Chordates I: Protists to Pseudocoelomates

**CO1:** To introduce with various forms of Protozoa and worms; their classification and structural anatomy.

CO2: To introduce the life cycle and pathogenicity of certain helminthes parasites.

CO3: To provide an idea about evolutionary significance of Ctenophora.

## Paper: ZC101P

CO1: To introduce the morphological structures of various protozoans and worms.

## Paper:ZC102T : Principles of Ecology

**CO1:** It provides a basic idea on ecology and impacts of ecological factors on living organisms.

CO2: To give an idea about the wildlife conservation methods and management strategies.

**CO3:** To introduce with some principles related to population ecology and factors effecting population growth.

## Paper: ZC102P:

**CO1:** To get acquainted with the indices of diversity and to understand interaction between organisms and it's environment through life tables and survivorship curve.

CO2: To get an understanding on the biotic and abiotic factors of an aquatic ecosystem.

CO3: To get an idea on biodiversity by visiting a National Park or Reserved Forest.

## 2<sup>nd</sup> Semester

## Paper: ZC203T: Non-Chordates II: Coelomates.

**CO1:** To introduce students to the phylums of Non-chordates with their characteristics and classification.

**CO2:** To introduce some of the important anatomical characters of the coelomic nonchordates and their significance.

## Paper: ZC 203P

**CO1:** To get acquainted with some selected specimens of coelomic non-chordates by studying their characters.

**CO2:** To get ideas on the digestive, excretory, nervous and larval forms of some selected coelomic non-chordates.

## Paper: ZC204T : Cell Biology

**CO1:** To introduce the students to the different organelles of the cell, their structures and functions.

**CO2:** To develop the understanding of the students on the types of cell division and their regulation.

CO3: To get an understanding on the cell signaling pathways.

## Paper: ZC204P

CO1: To get a basic idea on the different stages of mitotic and meiotic cell division with the help of permanent slides.

**CO2:** To prepare temporary and permanent slides using different staining techniques and study the cell division stages, RNA, DNA and protein.

## 3<sup>rd</sup> Semester

#### Paper: ZC305T: Diversity of Chordates

**CO1:** To expose the students to various forms of chordates with their characteristics and classification.

**CO2:** To develop an understanding on some of the important structural anatomy and important characters of selected chordates.

**CO3:** To expose the students to various theories that explain the distribution of animals based on climate, geography, geological history and evolutionary history.

## ZC 305P:

**CO1:** To introduce the students to some selected chordate specimens and develop their understanding by studying their characters and classifying them.

**CO2:** To get an understanding on the identification of poisonous and non poisonous snakes. **CO3:** To develop an understanding on the types of beaks and claws of some birds.

#### Paper: ZC306T: Animal Physiology: Controlling and coordinating systems

**CO1:**To provide a foundation for understanding the different tissues of an animal, their types, structure, location and functions.

**CO2:** To get an understanding on the Histology and Physiology of reproductive and endocrine glands.

**CO3:** To develop an understanding on the different hormones of endocrine glands, their mode of action and regulation.

## Paper: ZC306P

**CO1:** To study permanent slides and get an idea on the different types of tissues and endocrine glands based on Histology.

**CO2:** To develop an understanding on muscle contraction based on muscle twitch and knee jerk experiments.

CO3: To get an idea about preparation of permanent slides by process of microtomy .

## Paper: ZC 307T: Fundamentals of Biochemistry

**CO1**: To expose the students to the biomolecules of living organisms- carbohydrates, proteins, lipids, nucleic acids,their, classification, properties and functions.

**CO2:** To develop an understanding on the enzyme activity and effect of certain factors on the action of a selected enzyme.

## 4<sup>th</sup> Semester

## Paper: ZC408T: Comparative Anatomy of Vertebrates.

**CO1:** To introduce the concepts of the basic organ systems of vertebrates and make a comparison between important vertebrate classes.

**CO2:** To develop an understanding on the evolutionary development of some selected organs.

#### Paper: ZC408P

**CO1:** To get an idea on the scales of some fishes and skeletal system of some selected animals with the help of slides and bone specimens.

**CO2:** To get a basic idea on some selected organ systems with the help of videos and dissections.

#### Paper: ZC409T: Animal Physiology: Life sustaining systems.

**CO1:** To give a basic idea on the different physiological functions of organ systems in animal body.

**CO2:** To introduce the morphological and histological structures of some selected organ systems.

#### Paper: ZC409P

**CO1:** To introduce the types of blood groups and blood cell types using different tools. **CO2:** To give basic ideas on the Histology of different organs.

#### Paper: ZC410: Biochemistry of Metabolic processes

CO1: To give a basic idea on the metabolic processes of a cell.

## Paper: ZC410P

**CO1:** To develop an understanding on the activity of some selected enzymes. **CO2:** To give an idea on the amount of protein present in a solution.

#### 5<sup>th</sup> Semester

#### Paper: ZC511T: Molecular Biology

**CO1:** To develop an understanding on the salient features of DNA and RNA. **CO2:** To get an idea on how the genes and mRNAs are regulated.

#### Paper: ZC511P

CO1: To get an idea on how DNA and RNA is estimated using different assay methods.

**CO2:** To develop an understanding on chromosomes, DNA replication, transcription and genes by studying photographs.

## Paper: ZC512T: Principles of Genetics.

CO1: To develop an understanding on Mendelian Genetics.

CO2: To get an idea on linkage and crossing over and mutation.

CO3: To get an idea on recombination of bacteria and other genetic elements.

## Paper: ZC512P

**CO1:** To get a practical knowledge on Mendelian Genetics, recombination and chromosomal maps.

CO2: To get an idea on Pedigree Analysis of some inherited traits of human.

## Paper: ZD503T: Endocrinology

**CO1:** To develop an understanding on the endocrine glands, their hormones and related disorders.

CO2: To get an idea on how hormones are regulated and their mechanism of action.

## Paper: ZD503P

CO1: To develop practical knowledge on the structure and Histology of endocrine glands.

## Paper: ZD504T: Biology of Insecta

**CO1:** To introduce the classification, morphology and Physiology of insects. **CO2:** To develop an understanding on how plants and insects interact among themselves.

## Paper: ZD504P:

**CO1:** To develop practical knowledge on the morphological structures of insects, methods of insect collection and preservation.

CO2: To get an idea on some important pest and beneficial insects.

## 6<sup>th</sup> Semester

## Paper: ZC613T: Developmental Biology

**CO1:** To develop basic concepts on development of an embryo.

## Paper: ZC613P

**CO1:** To get a practical knowledge on the developmental stages of chick embryo, *Drosophila* and frog.

## Paper: ZC614T: Evolutionary Biology

**CO1:** To develop an idea on the concepts related to the origin of life, theories related to evolution and population genetics.

**CO2:** To develop an understanding on the evolutionary descent of species from a common ancestor.

## Paper: ZC614P

**CO1:** To develop practical knowledge on evolutionary biology by studying fossils and population genetics.

## Paper: ZD608T: Immunology

**CO1:** To develop an understanding on the immune system types mechanism pathways and pathway

**CO2:** To get an idea on vaccines and its types.

#### Paper: ZD608P

**CO1**: To develop a practical knowledge on different organs involved in immune system. **CO2**: To get an idea about the tools and techniques used in immunology.

## Paper: ZD609T: Parasitology

**CO1:** To get an idea about the hosts, parasites and vectors of some diseases. **CO2:** To develop an understanding about the life cycle and diseases caused by the parasites on human and animals.

CO3: To gain knowledge about the treatment of diseases, caused by the parasites.

#### Paper: ZD609P

**CO1:**To study the life stages of some selected parasites with the help of permanent slides and photographs.

Principal SONARI COLLEGE